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Implementation of Android-Based Learning Media on Student Learning Outcomes in SMA Negeri 1 Maros

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ABSTRACT

Implementation of android-based learning media on student learning outcomes at SMA Negeri 1 Maros. Thesis of Educational Technology Study Program, Faculty of Teacher Training and Education, University of Muhammadiyah Makassar, guided by Hj. Muliati Samad and H.Abd. Hamid Mattone. The purpose of this study was to determine the implementation of android-based learning media on student learning outcomes at SMA Negeri 1 Maros. The research method used is descriptive quantitative. Respondents were 49 students at SMA Negeri 1 Maros. Data analysis techniques are carried out by calculating the percentage per variable and statistical tests. Based on the results of the study, the authors provide an interpretation of the data on the produt moment correlation index number, through interpretation in a simple way or roughly on rxy. Based on the hypothesis testing, it turns out that the value of thit (0.9280) is greater than ttab (which is only 0.2816). It turns out that the correlation number between variables X and Y is not negative, meaning that between the two variables there is positive correlation, which means the alternative hypothesis (Ha) is accepted. Based on the results of the research above, it can be concluded that the implementation of android-based learning media on student learning outcomes at SMA Negeri 1 Maros has a significant effect.

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1. INTRODUCTION

The development of science and technology is so rapid, that it encourages every human being, to respond to all these developments quickly to follow it. The demand for human resources who have the ability to respond to the development of science and technology is very much needed. The ability to understand the development of science and technology requires critical, systematic, logical, creative thinking and a willingness to cooperate effectively.

Hardianto, 2005:102. The world of education cannot be separated from the learning process which includes teachers, students, and the learning environment that influence each other in order to achieve learning objectives. Media is one of the factors supporting the achievement of learning objectives. This is related to the use of appropriate and varied media in the learning process can increase learning motivation and can reduce students' passive attitude.

Along with the rapid development of current technological advances, especially in Indonesia, we cannot deny that the use of technology is rampant, even remote areas have been touched by technology. Technology that was once a secondary need has now become a primary need, starting from the lower, middle to upper classes, children and parents are already using technology, with the development of technology and being involved with education is something that makes it revolutionary to advance education with technology. .

The education of a country greatly determines the progress of the country. Of course, to advance our education, we need cooperation from various parties, especially teachers and students. A reliable teacher should be able to choose the type of learning media that can support the students' teaching and learning process. Currently, with the development of information and communication technology, many can be used as learning media. One of them is through Android which is currently growing very rapidly. In this case we discuss the use of technology as a learning medium, namely mobile learning based on Android, where this media utilizes technology in the form of cellphones and tablets that are owned by teachers and students today, as educational staff, we must be observant to see developments that occur in the community,

The latest technological development at this time is the Android system, where this system is often encountered on today's cellphones which are commonly called smartphones. and 90% of students already have android-based smartphones, in this case it is expected that the use of android-based mobile phones for students can increase their interest in learning, moreover we know that currently students' interest in learning is very lacking, they spend more time using smartphones than reading textbooks. Utilization of learning media wherever possible can be applied in all subjects. Educators also said that adjusting journal material was considered very difficult to convey using only conventional learning methods or lectures and limited media.

Learning media must be packaged as attractively as possible so that students can linger studying a material and there is no saturation in the learning process. Android-based media can make students addicted to their use because it is easy to access all kinds of questions that we can find in the android application itself. Educators currently still use the lecture method in the learning process so that students are less interested and prefer to do other things such as chatting with friends and busy with their respective gadgets. The reason for using the Android system to support learning today is because the Android operating system has become the most widely used system on smartphones. Besides being more practical and simple,

Based on the results of a survey I did, 80% of students at the school expect that the Android smartphone they use can function as a learning medium and smartphones are also more practical to bring to school than bringing a laptop or notebook, especially now that there are so many learning-based applications on Android. only one. Based on data from IDC (International Data Corporation) in 2014 Android holds 84.4% of the smartphone market share worldwide, the iPhone operating system is the operating system of the iPhone, which ranks second at 11.7%, followed by Windows Phone in the third rank at 2. .9% and Blackberry in fourth place with 0.5% market share.

Therefore, the authors are motivated to raise the title "Implementation of Android-based Learning on student learning outcomes". Learning through Android Smartphones will be more practical to do anywhere and anytime so that it can make it easier for students to learn.

2. RESEARCH METHOD

2.1 Approach and Type of Research

a. Approach This research uses a quantitative approach with descriptive research type. In general, quantitative research is required to use numbers starting from data collection, data interpretation and the appearance of the research results.

b. Type of research The method used in this research is descriptive research method, descriptive method is an activity that includes data collection in order to test hypotheses or answer questions regarding the ongoing state of the research subject. The main purpose of using this method is to describe the nature of a situation that is currently running at the time of the research being conducted and examine the causes of a particular symptom, while this type of research is an experimental research type that aims to find the level of change of a variable on other variables so that can be resolved.

2.2 Data Collection Techniques

a. Data Collection Techniques In order for the data obtained in the study to be truly accurate and accountable, the data collection techniques used in this study are as follows:

Questionnaire (questionnaire) Questionnaire or questionnaire is a data collection technique by giving a set of written questions to respondents to be answered. Sugiyono (2012:199) suggests that "questionnaire is a data collection technique which is done by giving a set of questions or written statements to respondents to answer". The type of instrument used in this study is in the form of a

scale, which is a collection of statements or questions that are filled out by respondents by giving a check mark (√) in the space provided with alternative answers provided which are tiered. (Arikunto. 2006:105). This questionnaire technique was used by the author to obtain data through written questions distributed to a number of respondents. In this case all other students in the school will be studied. The form of the questionnaire in this study is a structured questionnaire, where respondents only choose alternative answers according to the actual situation of a number of questionnaire questions, by knowing the frequency distribution of each variable whose data collection uses a questionnaire (questionnaire), then the scale model used in the questionnaire This is a Likert scale model in four choices, namely SL (Always), SR (Often), KD (sometimes), and TP (Never), the weighting of the questionnaire depends on the item of the question. Syaodih (2007:238) states that the Likert scale model uses a descriptive scale (SL, SR, KD TP). The basis of this descriptive scale is that someone's response to something can be expressed by a statement of approval of an object.

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The weighting of each item in the questionnaire uses a range from 1 to 4 for the responses that answer, as follows:

a) Always (SL) with a weighted value of 4
b) Often (SR) with a weighted value of 3
c) Sometimes (KD) with a weighted value of 2
d) Never (TP) with a weight value of 1

3. RESULTS AND DISCUSSIONS

3.1 Research Results

The results of the study regarding the implementation of android-based learning media on student learning outcomes in SMA Neg. 1 Maros Kab. Maros by using a questionnaire to 49 respondents, then the results of the questionnaire were analyzed using percentage analysis and with a frequency table to make it easier to understand the research was described based on the results of the questionnaire and based on the facts that existed during the author's research.

3.2 Descriptive Analysis

To obtain an overview of the implementation of android-based learning media on student learning outcomes, data and numbers will be presented with frequency based on respondents' statements based on the following dimensions:

Android-Based Learning Media In this variable consists of 10 statement items where each item is given a score of 4 and the lowest score is 1 with the number of respondents 49 thus the highest score is (ideal score) for each statement item of 196 (49 x 4) based on the result data. questionnaire filling.

3.3 Correlation Analysis

The data to be presented in this study were obtained from the results of the questionnaire implementation of the android-based learning media variable (X) and the Student Learning Outcomes Questionnaire variable (Y).

For the purposes of analysis, the data will be described in the following table:

Table 1. Correlation Analysis

X	Y	XY	X2	Y2
35	46	1610	1225	2116
35	44	1540	1225	1936
35	46	1610	1225	2116
34	44	1496	1156	1936
35	47	1645	1225	2209
37	45	1665	1369	2025
37	48	1776	1369	2304
36	48	1728	1296	2304
33	43	1419	1089	1849
37	47	1739	1369	2209
39	44	1716	1521	1936
36	45	1620	1296	2025
38	45	1710	1444	2025
36	44	1584	1296	1936
36	43	1548	1296	1849
34	44	1496	1156	1936
34	42	1428	1156	1764
34	45	1530	1156	2025
36	46	1656	1296	2116
35	43	1505	1225	1849
34	46	1564	1156	2116
35	42	1470	1225	1764
35	46	1610	1225	2116
34	45	1530	1156	2025
36	45	1620	1296	2025
35	41	1435	1225	1681
33	46	1518	1089	2116

X	Y	XY	X2	Y2
35	42	1470	1225	1764
35	44	1540	1225	1936
37	42	1554	1369	1764
34	47	1598	1156	2209
32	44	1408	1024	1936
34	46	1564	1156	2116
35	44	1540	1225	1936
34	45	1530	1156	2025
36	44	1584	1296	1936
35	45	1575	1225	2025
35	47	1645	1225	2209
36	44	1584	1296	1936
36	47	1692	1296	2209
35	45	1575	1225	2025
34	47	1598	1156	2209
35	45	1575	1225	2025
36	47	1692	1296	2209
35	45	1575	1225	2025
37	45	1665	1369	2025
35	45	1575	1225	2025
36	47	1692	1296	2209
34	45	1530	1156	2025
1725	**2202**	**77529**	**60809**	**99086**

3.4 Discussion

Based on the results of the rxy value data, the authors provide an interpretation of the data on the product moment correlation index number, in two ways, namely:

a. Interpreting in a simple way or roughly with respect to rxy from the above calculation, it turns out that the correlation number between the variables x and y is not negative, meaning that between the two variables there is a positive correlation, the correlation goes in the same direction. Taking into account the magnitude of rxy (ie = 0.9280), which ranges from 0.600 - 0.800, it means that there is a positive correlation between variables X and Y and it is a high variable.

b. Hypothesis Testing to find out whether the independent variable (X) has a significant relationship or not with the dependent variable (Y) can be known by testing significant t with the test criteria:

If thit > ttable = Ha is accepted If thit < ttable = Ha is rejected

Based on the calculation of the significant test, it can be seen that the thit value (0.9280) is greater than the table value at the 5% level, which is significant at 0.2816. It turns out that the calculated value is greater than ttab, then the alternative hypothesis (Ha) is accepted and the value of nil (Ho) is rejected. This means that there is a significant positive effect between variable X and variable Y.

According to Sugiyono (2010), if thit is greater than ttab then the hypothesis test is accepted and vice versa if thit is smaller than ttab then the hypothesis is rejected. Next, the author calculates the coefficient of determination to find out how much the implementation of android-based learning media (X) on the results student learning (Y). The calculation of the Coefficient of Determination (KD) that the author uses to determine the implementation of android-based learning media (X) on student learning outcomes (Y) is as follows with (r = 0.928): 52 KD = (r)2 x 100% = (0, 9280)2 x 100% = 0.861184 x 100% = 86.11% So, the contribution of android-based learning media implementation (X) to student learning outcomes (Y) is 86.11%. Taking into account the KD value of 86% and the RXY value = 0.9280 (high), then Ha which states if thit > ttab = Ha is accepted and thit < ttab = Ho is rejected. So the value of Ha is accepted. With the results that the research above shows the rxy value, the working hypothesis Ha which states that: there is a significant influence between android-based learning media on student learning outcomes at SMA Negeri 1 Maros, is accepted.

4. CONCLUSION

Based on data analysis and research results and the results of hypothesis testing that have been carried out, the following conclusions can be drawn: 1. There is a positive relationship between the

implementation of android-based learning media indicated by the calculation results of the correlation coefficient (r) which is 0, 9280. The magnitude of rxy (ie = 0.9280), which ranges from 0.600 to 0.800 means that the positive correlation between variable X and variable Y includes a high correlation. 2. Based on the hypothesis testing, it turns out that the value of thit (0.9280) is greater than ttab (which is only 0.2816). Because thit is more than ttab, the alternative hypothesis (Ha) is accepted and nil (Ho) is rejected. 3. Implementation of interactive, effective, android-based learning media and innovativeness on student learning outcomes at SMA Negeri 1 Maros is shown by the results of the calculation of the determinant coefficient, with a score of 86.11%. Based on the numbers obtained, it shows that the implementation of android-based learning media greatly influences student learning outcomes.

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